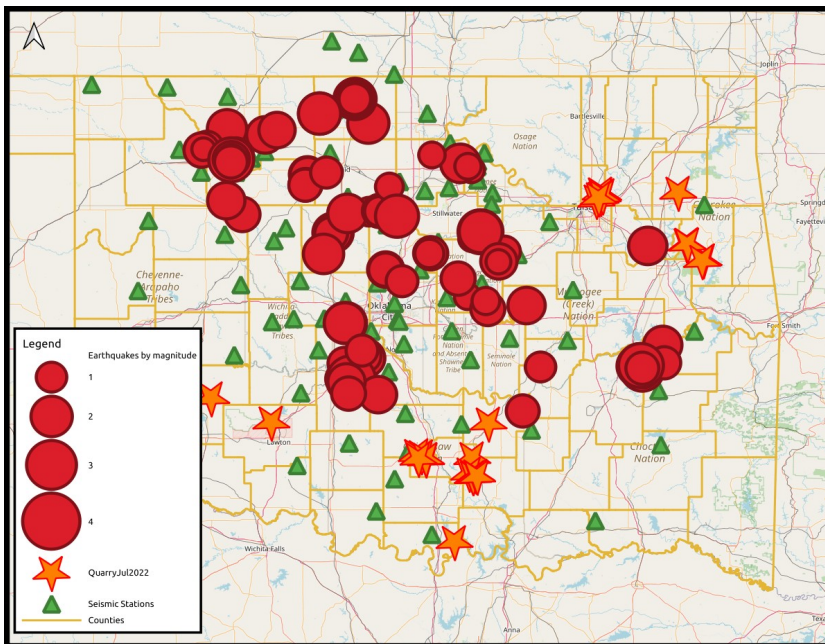




Bulletin of seismic activity in Oklahoma for the month of July 2022

This bulletin details earthquake activity as analyzed by the Oklahoma Geological Survey for July 2022. During July, a total of 202 earthquakes including 27 quarry blasts (Figure 1), were detected and reviewed. That represents a decrease of 4 earthquakes as compared with the previous month, June 2022, during which 206 earthquakes were detected and reviewed. The cumulative number of earthquakes from January through July 2022 is 1490.



During July 2022, Pittsburg county recorded the most seismic activity with 31 earthquakes, followed by Kingfisher county with 30 earthquakes. 34 out of 77 counties within the state have experienced at least 1 earthquake in July 2022 (Table 1).

The earthquake depths range from 0 to 19 km while the magnitudes fluctuate from 0.2 M_L to 2.9 M_L (Table 2). Excluding the quarry blasts that have a depth of 0, the average depth during this month is 6.96 km.

Figure 1. Epicenter Map of Earthquakes in Oklahoma during July 2022.

Earthquakes per Counties							
County	Earthquakes	County	Earthquakes	County	Earthquakes	County	Earthquakes
Alfalfa	7	Grant	9	Mayes	1	Payne	6
Blaine	4	Hughes	1	McClain	5	Pittsburg	31
Canadian	2	Kay	2	McIntosh	1	Pontotoc	2
Cherokee	2	Kingfisher	30	Murray	10	Tulsa	6
Comanche	1	Kiowa	1	Muskogee	3	Wagoner	1
Dewey	1	Lincoln	10	Noble	1	Woods	2
Garfield	1	Logan	7	Okfuskee	1	Woodward	5
Garving	2	Love	1	Oklahoma	3		
Grady	26	Major	11	Pawnee	6		

Table 1. Table of earthquakes per county in Oklahoma during July 2022.

Number of Earthquakes per Magnitude range		
Magnitude range	Number of Earthquakes	Earthquake Effects
0 – 0.9	32	Usually not felt.
1 – 1.9	154	Usually not felt.
2 – 2.9	16	Often felt.

Table 2. Number of earthquakes per magnitude in Oklahoma during July 2022.

The largest earthquake that was recorded during July 2022 was in Grady county and had a magnitude of 2.9 M_L .

For the most current information on earthquakes and other OGS-related news, visit: <https://www.ou.edu/ogs>.